

### ABSTRACT OF THE DISCLOSURE

It is an object to provide a sputtering system that enables forming a high-quality thin film including no impurity, and it is also an object of the present invention to provide a method for manufacturing a high-quality thin film with the sputtering system.

5 The present invention provides a sputtering system including a target material and a part coated with a spray material including the same material as the target material. The present invention also provides a method for manufacturing a thin film including one of a target material, oxide of the target material, and nitride of the target material,  
10 which includes preparing a sputtering system including the target material and a part coated with a spray material including the same material as the target material, and applying high-frequency power in an atmosphere including rare gas.